

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

Claim 1 (currently amended): An organic electroluminescent display device comprising:

a cell including at least one carrier-transporting layer comprising a liquid crystal substance and at least one organic luminous layer sandwiched between a transparent electrode and a backside electrode each held in parallel to the ~~other, the organic electroluminescent display device~~ other;

a substrate having two surfaces, the cell being laid on a on one surface of a of the substrate; and ~~further comprising~~

a polarizing plate laid on the other surface of the substrate,

wherein a layer adjacent the liquid crystal substance is an oriented layer; and

wherein said display device is driven as a liquid crystal display device at a voltage lower than a light emission initiating potential of the organic luminous layer or as an electroluminescent display device at a voltage higher than the light emission initiating potential of the organic luminous layer in response to magnitude of an applied voltage.

Claim 2 (original): The organic electroluminescent display device according to Claim 1, wherein the organic luminous layer includes a polymer.

Claim 3 (previously presented): The organic electroluminescent device according to Claim 1, wherein the organic luminous layer includes a polymer dispersing a low molecule therein.

Claim 4 (cancelled).

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1774

Application No. 10/650,361

Paper Dated: October 18, 2006

In Reply to Final Office Action of August 23, 2006

Attorney Docket No. 2204-031579

Claim 5 (original): The organic electroluminescent display device according to Claim 1, wherein the carrier-transporting layer includes a nematic liquid crystal layer.

Claim 6 (original): The organic electroluminescent display device according to Claim 1, wherein the carrier-transporting layer comprises a liquid crystal layer having a low-molecular carrier-transporting substance dispersed therein.

Claim 7 (original): The organic electroluminescent display device according to Claim 6, wherein the liquid crystal layer contains two or more different organic compounds.

Claim 8 (cancelled).

Claim 9 (currently amended): An organic electroluminescent display device comprising:

a cell including at least one carrier-transporting layer and at least one organic luminous layer comprising a liquid crystal substance sandwiched between a transparent electrode and a backside electrode held in parallel to said transparent ~~electrode, the organic electroluminescent display device~~ electrode;

a substrate having two surfaces, the cell being laid on a on one surface of a substance of the substrate; and ~~further comprising~~

a polarizing plate laid on the other surface of the substrate,

wherein a layer adjacent the liquid crystal substance is an oriented layer; and

wherein said display device is driven as a liquid crystal display device at a voltage lower than a light emission initiating potential of the organic luminous layer ~~or~~ and as an electroluminescent display device at a voltage higher than the light emission initiating potential of the organic luminous layer in response to magnitude of an applied voltage.

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Claim 10 (original): The organic electroluminescent display device according to Claim 9, wherein the carrier-transporting layer comprises a polymer.

Claim 11 (previously presented): The organic electroluminescent display device according to Claim 9, wherein the carrier-transporting layer comprises a polymer dispersing a low molecule therein.

Claim 12 (cancelled).

Claim 13 (original): The organic electroluminescent display device according to Claim 9, wherein the organic luminous layer includes a nematic liquid crystal layer.

Claim 14 (original): The organic electroluminescent display device according to Claim 13, wherein the liquid crystal layer includes two or more different organic compounds.

Claim 15 (cancelled).

Claim 16 (currently amended): An organic electroluminescent display device comprising:

a cell including an organic luminous layer and a carrier-transporting layer, either one or both of which includes a liquid crystal, sandwiched between a transparent electrode and a backside electrode held in parallel to said transparent ~~electrode, electrode; the~~ organic electroluminescent display device

a substrate having two surfaces, the cell being laid on a on one surface of a of the substrate; and further comprising

a polarizing plate laid on the other surface of the substrate,

wherein a layer adjacent the liquid crystal is an oriented layer; and

wherein said display device is driven as a liquid crystal display device at a voltage lower than a light emission initiating potential of the organic luminous layer ~~or~~ and as

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an electroluminescent display at a voltage higher than the light emission initiating potential of the organic luminous layer device in response to magnitude of an applied voltage.

Claim 17 (previously presented): The organic electroluminescent display device according to Claim 16, wherein the liquid crystal includes two or more of different organic compounds.

Claim 18 (cancelled).

Claim 19 (currently amended): An organic electroluminescent display device including at least one organic luminous layer comprising an electroluminescent liquid crystal sandwiched between a transparent electrode and a backside electrode each held in parallel to the other,

wherein a layer adjacent the electroluminescent liquid crystal is an oriented layer; and

wherein said display device is driven as a liquid crystal display device ~~or~~and as an electroluminescent display device in response to magnitude of an applied voltage.

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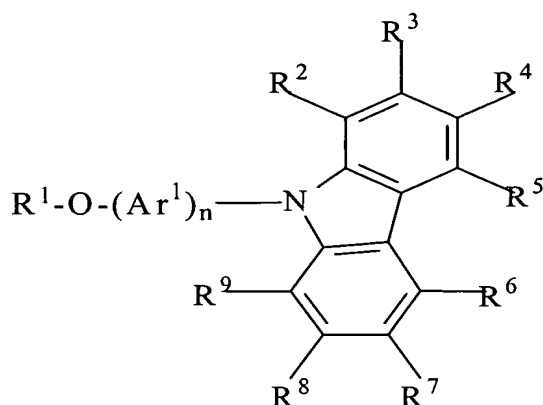
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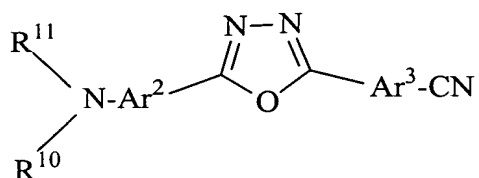
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Claim 20 (withdrawn): An organic electroluminescent liquid crystal comprising a chemical compound having a general constitutional formula of:



wherein R^1 is a straight-chained alkyl group containing 1-20 carbon atoms, R^2 to R^9 is individually hydrogen or an alkyl group containing 1-3 carbon atoms, and Ar^1 is a substituted or non-substituted aryl group containing 6-14 carbon atoms.

Claim 21 (withdrawn): An electroluminescent liquid crystal comprising a chemical compound having a general constitutional formula of:



wherein R^{10} and R^{11} are individually straight-chained alkyl groups containing 1-20 carbon atoms, and Ar^2 and Ar^3 are individually substituted or non-substituted aryl groups containing 6-14 carbon atoms.

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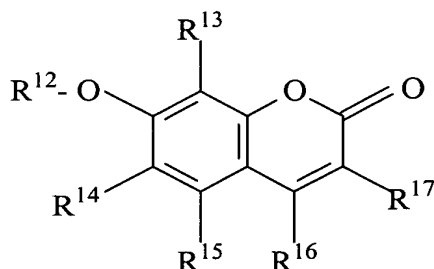
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Claim 22 (withdrawn): An electroluminescent liquid crystal comprising a chemical compound having a general constitutional formula of:



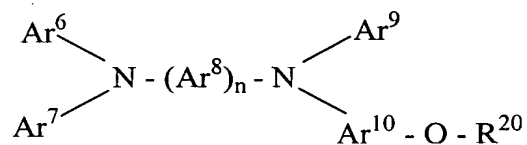
wherein R¹² is a straight-chained alkyl group containing 1-20 carbon atoms, and R¹³ to R¹⁷ are individually hydrogen or alkyl groups containing 1-3 carbon atoms.

Claim 23 (withdrawn): An electroluminescent liquid crystal comprising a chemical compound having a general constitutional formula of:



wherein R¹⁸ and R¹⁹ are individually straight-chained alkyl groups containing 1-20 carbon atoms, and Ar⁴ and Ar⁵ are individually substituted or non-substituted aryl groups containing 6-14 carbon atoms.

Claim 24 (withdrawn): An electroluminescent liquid crystal comprising a chemical compound having a general constitutional formula of:



wherein R²⁰ is a straight-chained alkyl group containing 1-20 carbon atoms, and Ar⁶ to Ar¹⁰ are individually substituted or non-substituted aryl groups containing 6-14 carbon atoms.

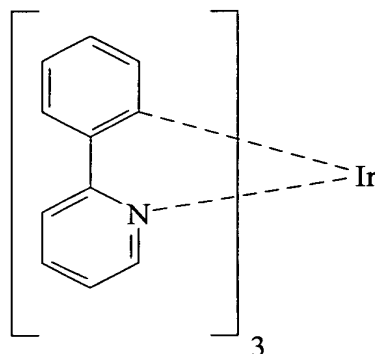
Claim 25 (previously presented): An organic electroluminescent display device including at least one carrier-transporting layer comprised of a liquid crystal substance and at least one organic luminous layer sandwiched between a transparent electrode and a backside electrode each held in parallel to the other,

wherein said display device is driven as a liquid crystal display device or as an electroluminescent display device in response to magnitude of an applied voltage;

wherein the carrier-transporting layer comprises a liquid crystal layer having a low-molecular carrier-transporting substance dispersed therein;

wherein the liquid crystal layer contains two or more different organic compounds; and

wherein at least one of the two or more different compounds is Ir(ppy)₃ having a formula of:



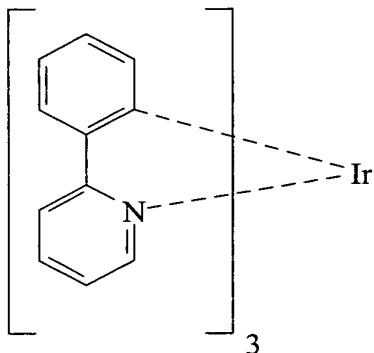
Claim 26 (previously presented): An organic electroluminescent display device including at least one carrier-transporting layer and at least one organic luminous layer comprising a liquid crystal substance sandwiched between a transparent electrode and a backside electrode held in parallel to said transparent electrode,

wherein said display device is driven as a liquid crystal display device or as an electroluminescent display device in response to magnitude of an applied voltage;

wherein the organic luminous layer includes a nematic liquid crystal layer;

wherein the liquid crystal layer includes two or more different organic compounds; and

wherein at least one of the two or more different organic compounds is Ir(ppy)_3 having a formula of:



Claim 27 (previously presented): An organic electroluminescent display device including an organic luminous layer and a carrier-transporting layer, either one or both of which includes a liquid crystal, sandwiched between a transparent electrode and a backside electrode;

wherein said display device is driven as a liquid crystal display device or as an electroluminescent display device in response to magnitude of an applied voltage;

wherein the liquid crystal includes two or more different organic compounds;
and

wherein at least one of the two or more different organic compounds is Ir(ppy)_3 having a formula of:

